Esophageal Cancer Recognition using an Artificial Neural Networks

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Abstract

Esophageal cancer patients don’t have ability to speak usually because of absence of their vocal chords which have been detached. While talking every individual patient make different vocal sound from each other. Esophageal speech recognition is one of the major applications that can be incorporated in supermarkets in case of identifying esophageal speech from the vocal sounds which have been imported from different persons. Meanwhile, the speech recognition technology has been improving rapidly. However, to date, the esophageal speech recognition technology has been developing to identify esophageal abnormality appropriately. This research work describes a system for esophageal speech recognition. The key part of the speech recognition system is speech extraction, feature extraction and recognition of esophageal speech. The Artificial Neural Network (ANN) has been used to extract the feature and characteristic of esophageal speech. The proposed system can recognize the esophageal speech nearly up to 97 % acceptably. From the experimental results, it can be concluded that the proposed system is better than any other recent proposed methods.
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Index Terms

Computer Science Artificial Intelligence

Keywords

Esophageal speech, Esophageal Cancer, Speech Recognition, Artificial Neural Network (ANN), Feature Extraction, Classification.